



Article

[2+2] cyclo-addition reactions for efficient polymerisation on a HOPG surface at ambient conditions

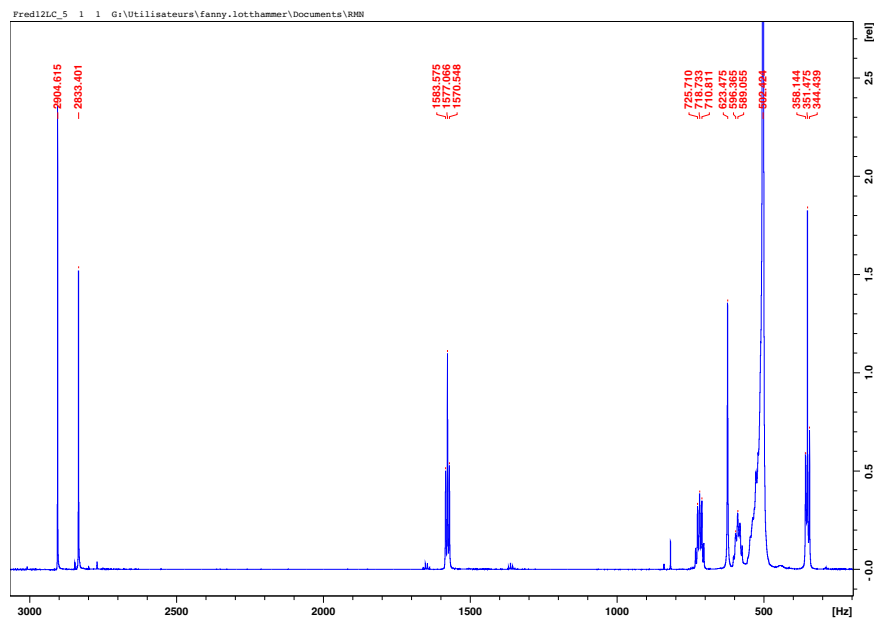
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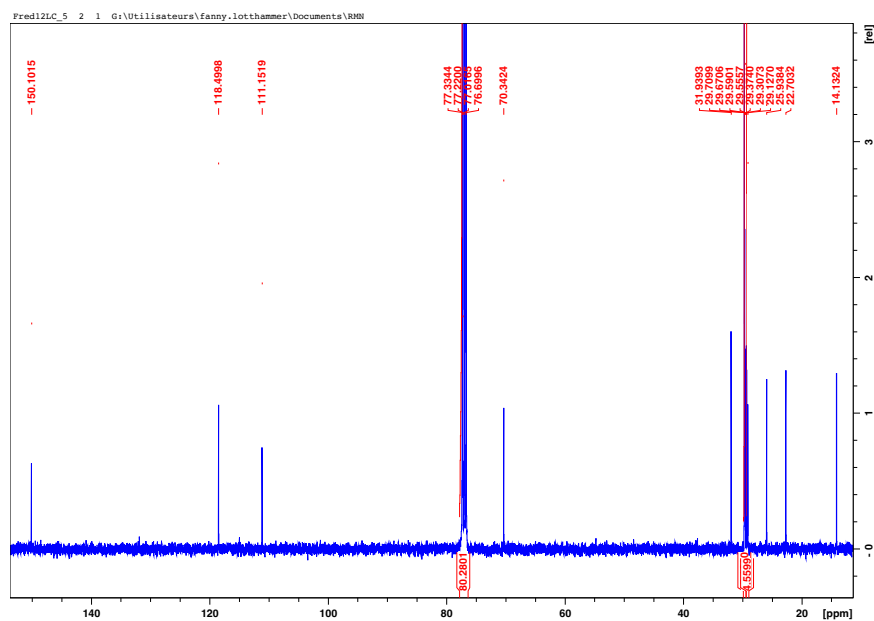
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a)



b)



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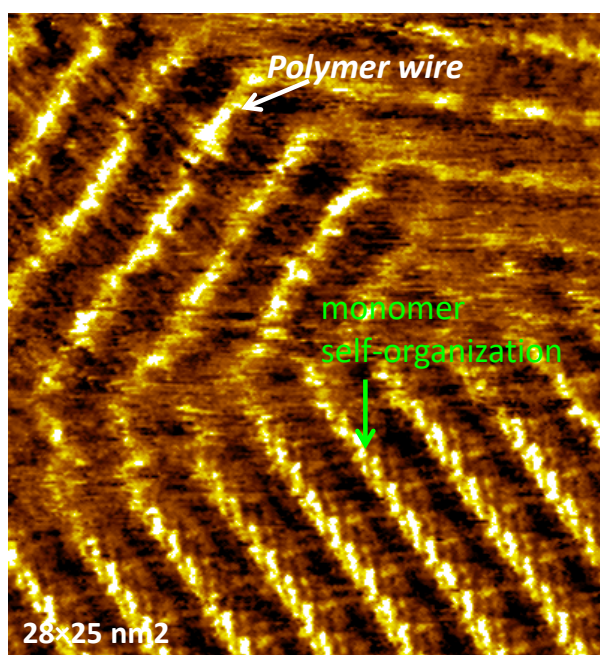


Figure S3. STM image ($V_s = -0.5\text{V}$, $I_t = \text{pA}$, $28\text{ nm} \times 25\text{ nm}$) of vinyl-OC18 photo-polymerized (upper part) and unpolymerized (lower part) networks.

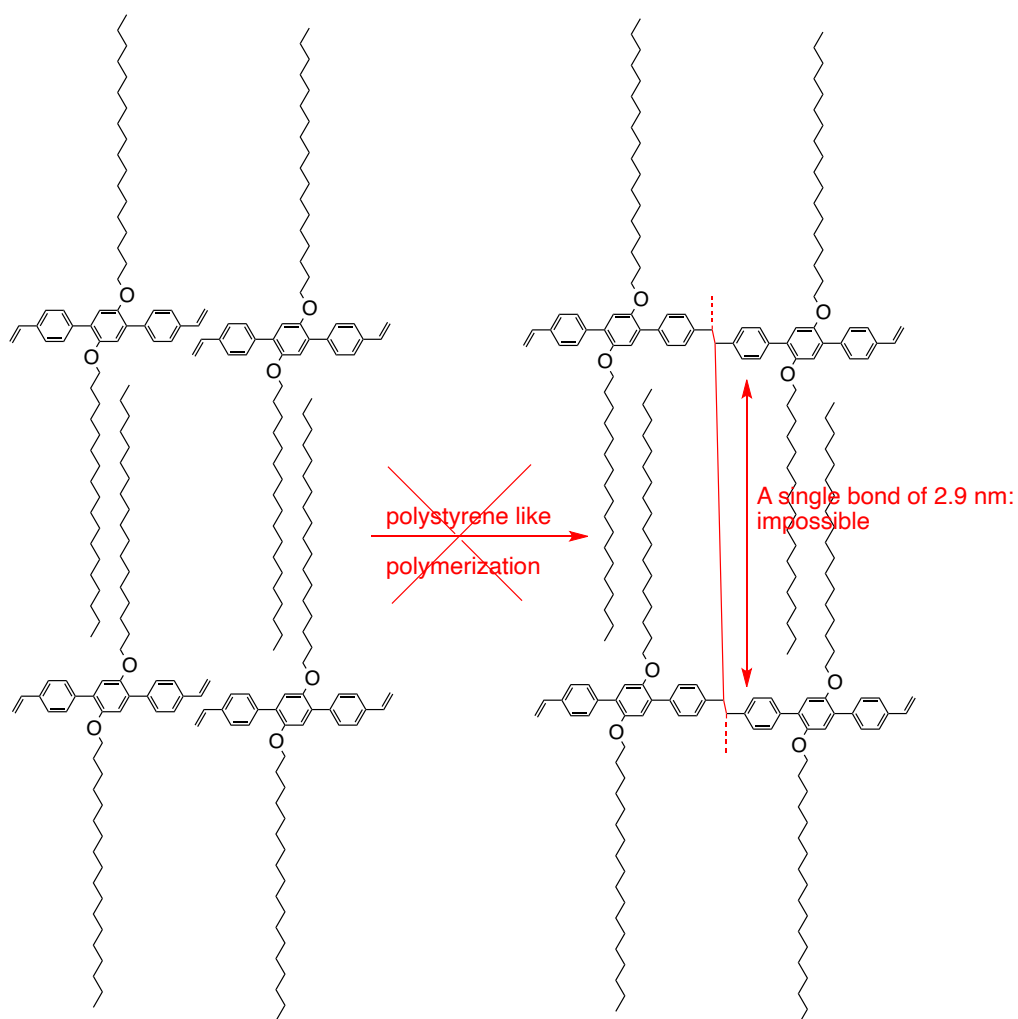


Figure S4. Scheme of hypothetical polymerization of C=C bonds between adjacent vinyl-OC18 molecules as usually observed in the case of styryl-derivatives. The lateral alkyl chains are too long to allow the formation of C-C bond between molecules (highlighted in red).

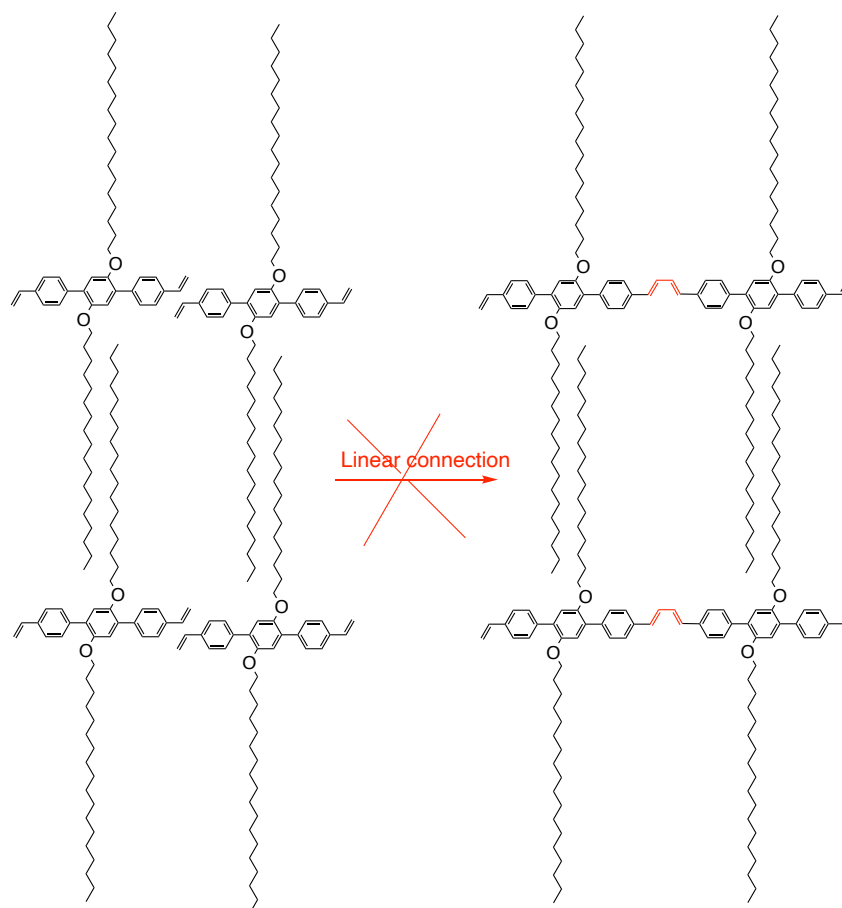


Figure S5. Scheme of hypothetical polymerization of C=C bonds between consecutive vinyl-OC18 molecules (new bonds are highlighted in red). This type of reaction requires coinage metal surface, high temperature and UHV conditions.